

UK Patent Application

(19) GB

(11) 2 223 394 (13) A

(43) Date of A publication 11.04.1990

(21) Application No 8820408.6

(22) Date of filing 27.08.1988

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United Kingdom(51) INT CL⁴
A43C 15/00(52) UK CL (Edition J)
A3B B14A5

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EP 0103507 A(58) Field of search
UK CL (Edition J) A3B
INT CL⁴ A43C
Online database : WPI

(54) Sports shoe

(57) A sports shoe, in particular a cricket, golf or athletes' shoe, has an array of fixed pimple studs 4, and a number of stud-securement sites 6. It is provided with a set of removable spike studs 14, intended to penetrate the ground to a substantial depth, and a plurality of removable pimple studs, similar to the fixed pimple studs 4. Thus, the user may secure removable pimple studs in all the stud-securement sites, to provide the sole with pimple studs exclusively. Alternatively, he may introduce spike studs into the stud securement sites, or a mixture of spike studs and pimple studs.

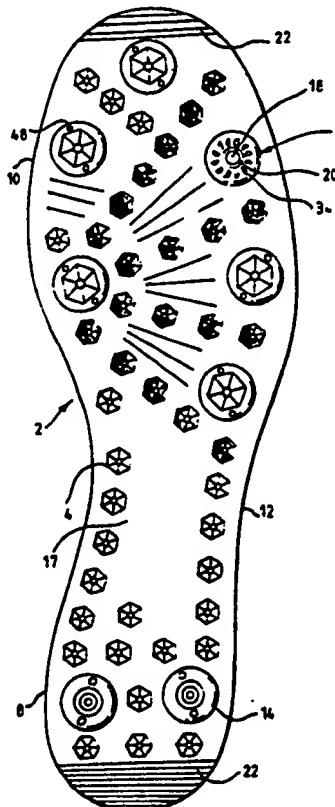


FIG. 1.

UDC 620.002.4

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SPORTS SHOE

This invention relates to a sports shoe, the sole of which carries studs. The invention relates in particular to a cricket, golf or athletes' shoe.

Generally, cricket, golf and athletes' shoes are provided with an array of studs, each having a spike for penetrating the ground to a substantial depth, typically the length of the spike. Studs of this type are hereinafter called "spike studs". Commonly, such spike studs are removable, whereby they may be replaced when worn down.

Becoming more common are cricket and golf shoes provided with an array of studs, each being in the form of a projection or pimple. Studs of this type are hereinafter called "pimple studs". Such an array of pimple studs provides grip against the ground without penetrating it in the manner of spike studs. If they do penetrate the ground, as they may do if the ground is particularly soft, they do not penetrate it to a substantial depth, i.e., by the length of the pimples unless the ground is extremely soft. Pimple studs are not removable and are generally moulded in one piece with the sole.

Cricket shoes having an array of removable spike studs on the front part of the sole and an array of pimple studs on the heel part are available.

According to the present invention there is provided a sports shoe and alternative sets of removable studs therefor, one set being spike studs and another set being pimple studs.

Preferably, the sole of the shoe carries an array of fixed studs whereby one set of removable studs may be engaged in the stud-securement sites provided on the sole. If a sole carrying only one type of stud is required, and an alternative set of removable studs may be so engaged if a mixed pimple stud/spike stud sole is required. It is preferred that the fixed studs and the stud-securement sites are located both at the front part of the sole and at the heel part. Thus, when a mixed pimple stud/spike stud sole is required, the removable studs are dispersed throughout the sole, within an array of fixed studs.

Preferably, the fixed studs are pimple studs.

Suitably, the number of fixed studs exceeds the number of stud-securement sites. Preferably about 5-12 securement sites are provided, more preferably about 7-10; the heel part of the sole preferably has about 2-4 stud-securement sites and the front part about 3-8.

Spike studs at the front part of the sole, when provided (as fixed studs, or, when selected, as removable studs) are preferably located around the periphery of the front part.

Pimple studs, whether fixed or removable, may be of conventional shape, having a rounded head on a generally cylindrical body. They may alternatively be of a novel shape having a plurality of facets leading to a point or, more preferably, an end face. Whilst such pimple studs may penetrate a short way into the ground, they are not intended to penetrate the ground deeply, to their full length, in the manner of spike studs. To this end such pimple studs may be wide at their base, relative to spike studs. Moreover, a large number may be provided.

A preferred sports shoe according to the invention provides a sole with an array of fixed pimple studs, a plurality of stud-securement sites at the heel part of the sole, a plurality of stud-securement sites at the front part of the sole, and alternative sets of removable studs therefor, one set being spike studs and another set being pimple studs. Preferably, when the sole is of the flat (unstepped) type, fixed pimple studs are provided on the portion of the sole corresponding to the arch of the wearer's foot, between the front and the heel portion.

In accordance with another aspect of the invention, there is provided a pimple stud provided with securement means whereby it may be removably secured in a stud-securement site in the sole of a sports shoe.

In accordance with another aspect of the invention, there is provided a sole for a sports shoe as herein defined and described.

It will be understood that the term sports shoe as used herein includes within its compass covers boots, overshoes etc. The invention is of particular interest for golf, and especially cricket shoes

The invention will now be further described by way of example, with reference to the accompanying drawing, in which

Figure 1 shows the sole of a cricket shoe in accordance with the invention; and

Figure 2 shows alternative studs for engagement in the sole of Figure 1.

The sole 2 carries an array of fixed pimple studs 4 and stud-securement sites 6 for removable studs. The fixed pimple studs 4 are located throughout the sole, on the heel part 8, on the front part 10, and on the arch part 12. Two stud-securement sites 14 are located on the heel part, and six stud-securement sites are located on the front part, around the periphery thereof.

Of the fixed pimple studs 4, those shown unshaded are co-moulded with the sole, and those shown shaded are moulded as a web, in a different colour to the remainder of the sole, the web being secured to the remainder of the sole with the pimple studs projecting through holes therein. The sole and web are moulded from polyurethane. The arch part 12 of the sole carries two longitudinal rows of fixed pimple studs, spaced apart by an unstudded area 17 for display of a trade mark or logo.

Each stud-securement site has a central well 18 within which is mounted an internally screw-threaded steel socket 20.

The extremities of the front and heel part of the sole are provided with transverse ribs 22.

The shoe is supplied with a set of eight spike studs 24 and a set of eight pimple studs 26. The spike studs 24 are of conventional type, having a steel spike 28 mounted on a screw-threaded portion 30 provided with, at the junction of these parts, a disc 32 of polyurethane. The screw threaded portion 30 engages within the socket 20 of a stud-securement site when the stud is secured in place. The contacting surfaces around the socket and on the disc 32 are provided with means to prevent unwanted loosening of the stud, in the form of a

complimentary series of small projections each having a ramped surface and abutment edge, the abutment edges of the respective parts facing each other and hindering separation. The projections 34 at one stud-securement site 6 are shown.

Each of the pimple studs comprises a polyurethane head 36 moulded onto a steel threaded part 38. The head 36 comprises a disc part 40 and a pimple part 42, the latter having six facets 44 which taper from the disc 40 to an end face 46.

The fixed pimple studs 4 are smaller in area than and are slightly shorter than, the removable pimple studs 26, but are of similar profile, having six facets leading to a small end face.

Each removable stud is provided with a pair of diametrically opposed holes 48, whereby the studs may be tightened and removed using a conventional stud key.

The arrangement of fixed studs and removable studs is such that the removable studs are spaced apart from one another by the array of fixed studs.

The user may choose to employ solely removable pimple studs, to have an all-pimple sole, or solely removable spike studs, to have a mixed sole with the maximum number of spike studs, or, as shown in Figure 1, may chose to employ removable spike studs and removable pimple studs.

The Invention is not restricted to the details of the foregoing embodiment. The Invention extends to any novel one, or any novel combination, of the features

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disclosed in this specification (including any accompanying claims, abstract and drawings).

All of the features disclosed in this specification (including any accompanying claims, abstract and drawings) may be combined in any combination, except combinations where at least some of such features are mutually exclusive.

CLAIMS

1. A sports shoe kit, comprising a sports shoe which has a sole which has a plurality of securement sites for removable studs, and alternative sets of removable studs therefor, one set being spike studs and another set being pimple studs.
2. A kit as claimed in Claim 1, wherein the sole of the shoe carries an array of fixed studs.
3. A kit as claimed in Claim 2, wherein fixed studs and securement sites for removable studs are located at the front part of the sole of the shoe, and fixed studs and securement sites for removable studs are located at the heel part of the sole of the shoe.
4. A kit as claimed in Claim 2 or 3, wherein the fixed studs of the shoe comprise pimple studs.
5. A kit as claimed in any of Claims 2 to 4, wherein the number of fixed studs of the shoe exceeds the number of securement sites for removable studs.
6. A kit as claimed in any preceding claim, wherein 5-12 securement sites for removable studs are provided on the sole of the shoe.
7. A kit as claimed in any preceding claim, wherein, around the periphery of the front part of the sole of the sports shoe, there are provided fixed spike studs and/or securement sites for removable studs, whereby spike studs can be located therein.

8. A kit as claimed in any preceding claim, wherein a pimple stud has a plurality of facets leading to a point or an end face.
9. A sports shoe kit comprising: a sports shoe whose sole has an array of fixed pimple studs, a plurality of securement sites for removable studs at the heel part of the sole, and a plurality of securement sites for removable studs at the front part of the sole; and alternative sets of removable studs for such sites, one set being spike studs and another set being pimple studs.
10. A sports shoe kit as claimed in any preceding claim, wherein the shoe is a golf or cricket shoe.
11. A pimple stud provided with securement means whereby it may be removably secured in a securement site in the sole of a sports shoe.
12. A sports shoe kit, or removable pimple stud, substantially as hereinbefore described with reference to the accompanying drawings.

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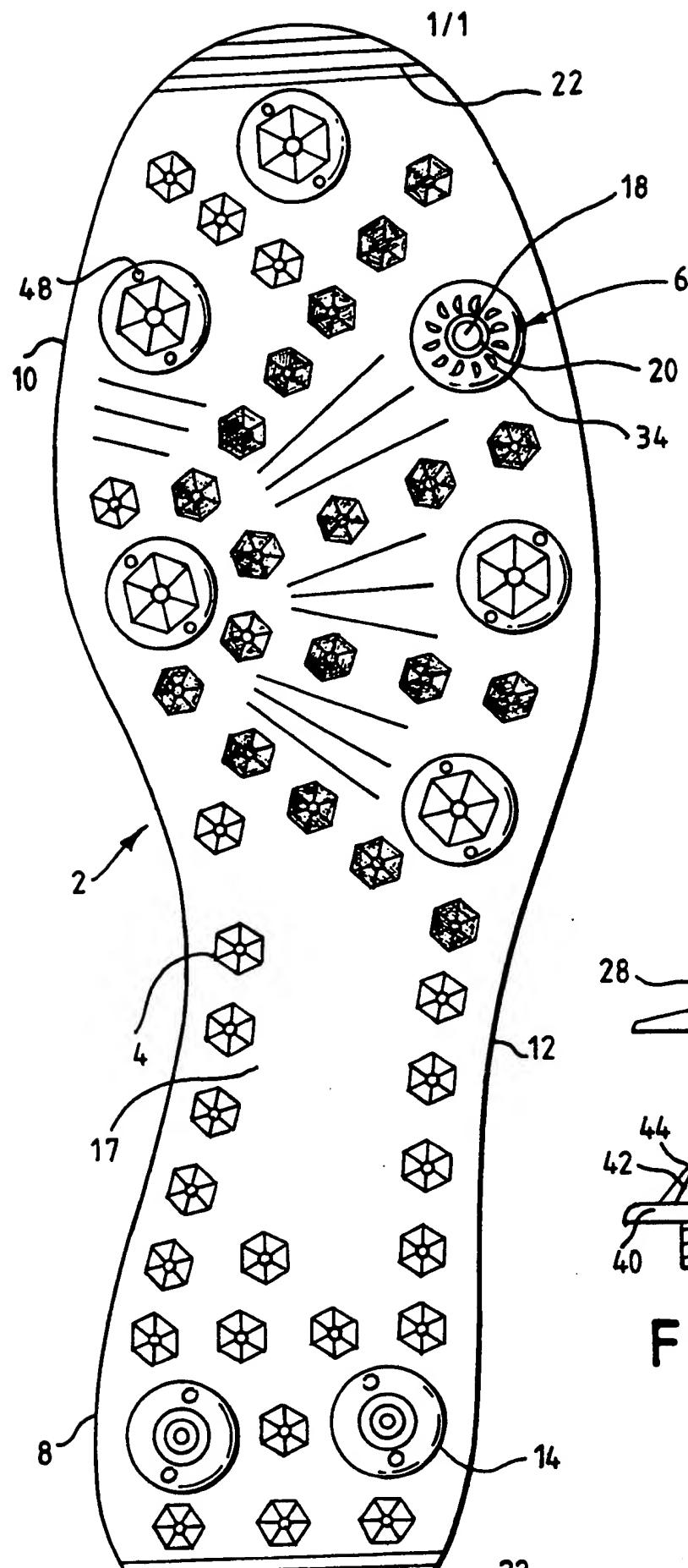


FIG. 1.

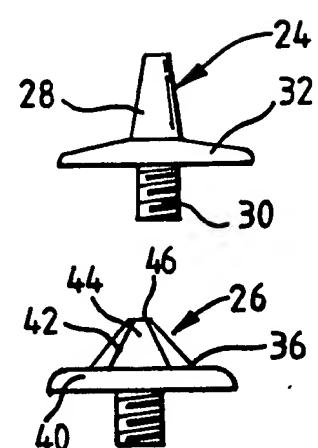


FIG.2.